

der commercial plans and PDP for 2 high-use drugs in each of the six therapeutic classes deemed medically necessary by CMS for beneficiaries as well as two statins, for reference. **METHODS:** TRx and OPC were collected annually from 2002 to 2009 for the two most prescribed drugs in the six medically necessary classes: anticonvulsants, antidepressants, oral antineoplastics, antipsychotics, immunosuppressants, and HIV/AIDS—plus statins (14 drugs total). Data are from SDI's VONA and VOPA, analyzed with 2-way ANOVA; significance at $p < 0.05$. **RESULTS:** All drugs analyzed had annual increases of $>10\%$ per year in PDP prescription volume. However, nine drugs had significantly greater annual increases in commercial plan prescription volumes before PDP than after, compared to only one with significantly greater increases after PDP. Six drugs had significantly greater increases in overall prescription volume after PDP compared to before. Five drugs had annual OPC increases of at $>10\%$ per year in PDP compared to two that posted at least 10% annual decreases. Six drugs had significantly greater annual OPC increases before PDP compared to after under commercial plans; only one had greater increases after Part D compared to before. Five drugs showed significantly greater increases in overall OPC (all payment forms averaged) before PDP compared to after. **CONCLUSIONS:** In commercial drug plans, the advent of Part D correlates with slower increases in drug utilization. However, Part D utilization has increased significantly for all drugs, indicating a greater shift toward Part D plans. That only five drugs under Part D increased in OPC by more than 10% (and two decreased overall) suggests that this shift may be due to greater patient access.

PHP24

NUMBER AND TYPE OF DRUGS USED BY SENIORS ON PUBLIC DRUG PROGRAMS IN CANADA, 2002 TO 2008

Hunt J, Gaucher M

Canadian Institute for Health Information, Ottawa, ON, Canada

OBJECTIVES: The use of multiple medications can increase the risk of adverse effects, drug interactions and non-compliance with drug therapy, all of which may result in less-than-optimal health outcomes. Seniors are at a particularly high risk of adverse effects. Although it may be appropriate for a patient to be taking a high number of medications, the additional risks should be considered. This analysis examines the number and types of drugs being used by seniors, and how utilization changes as seniors age. **METHODS:** Claims level data from the National Prescription Drug Utilization Information System (NPDUIS) Database were analyzed for 1,039,642 seniors on public drug programs in six Canadian provinces between 2002 and 2008, representing over 80% of the senior population in those provinces in 2008. Drug classes were defined using the World Health Organization's Anatomical Therapeutic Chemical classifications. The number of drugs was calculated as the number of unique drug classes a person claimed in a given year. **RESULTS:** In 2008, 21.4% of seniors on public drug programs had claims for 10 or more drug classes, a slight increase from 2002 (18.6%). The number of drug classes used by seniors increased with age. The most commonly used drug classes were used to treat chronic conditions such as high cholesterol, high blood pressure, heart failure, and emphysema. 3-hydroxy-3-methyl-glutaryl-Coenzyme A reductase inhibitors were the most commonly used drug class among seniors aged 65 to 84, while single-ingredient angiotensin-converting enzyme inhibitors were the most commonly used class among those aged 85 and over. **CONCLUSIONS:** Findings suggest a high proportion of seniors may be at risk for drug interactions and other adverse events due to the number of medications they are taking. This illustrates the importance of medication management strategies for seniors, and the need for communication between health care providers regarding seniors' drug regimens.

PHP25

THE POTENTIAL VALUE OF THE 2014 MEDICAID EXPANSION

Sepulveda B, Doyle J

Quintiles, Hawthorne, NY, USA

OBJECTIVES: With the imminent \$40 billion expansion of Medicaid in 2014, health insurers face new opportunities to benefit by privately managing these growing plans for some of the larger states. Overall, the States will see a 32% increase—approximately 16 million—in Medicaid enrollees in 2014 (UnitedHealth). We analyzed the potential windfall of this expansion in the ten states with the largest projected growth in five of the largest drug markets. **METHODS:** Prescription volume (TRx) and out-of-pocket costs (OPC) in five of the largest drug markets (depression, diabetes, hypertension, cholesterol, pain) were obtained for the ten states with the largest Medicaid enrollment increases (California, Texas, Florida, Pennsylvania, Ohio, Michigan, Georgia, North Carolina, Illinois, Louisiana; Source: UnitedHealth). Data were obtained from June 2006 to June 2010; SDI VONA and VOPA databases. **RESULTS:** Medicaid prescriptions represent a significant portion of TRx in the 10 states analyzed, from 2.7% (MI) to 8.9% (IL). Furthermore, Medicaid accounts for a considerable fraction of TRx in each of the drug markets analyzed, from 1.5% (cholesterol) to 3.2% (pain). The average annual changes in Medicaid prescriptions were highly variable—from -7.5% (OH) to 8.2% (IL). Average national OPC among these drug markets have decreased an average of 20.1% per year compared to a decrease of 4.8% among private insurers. **CONCLUSIONS:** Medicaid already represents a significant portion of prescription volume, and that patient access is constantly increasing with precipitously decreasing OPC. With the impending rise in Medicaid enrollment in 2014, prescription volumes will increase further, representing a great opportunity for the external management of Medicaid plans.

PHP26

ANALYSIS OF THE SIX PROTECTED MEDICATION CLASSES BASED ON PLAN TYPE AND LOW INCOME SUBSIDY STATUS

Blackwell S, Waldron C, Evans M

Centers for Medicare & Medicaid Services (CMS), Baltimore, MD, USA

OBJECTIVES: The primary research question was to identify trends in cost of the six protected medication classes in the Part D program based on plan type and low income status between calendar years 2007 and 2008. The second research question was to identify trends in gap phase and catastrophic phase entry. **METHODS:** The primary data source was the prescription drug event data in the Chronic Condition Warehouse (CCW) for 2007 and 2008. Data were inflation-adjusted. Results are based on analysis of 100% data for Medicare beneficiaries in the CCW. The six protected medication classes under study were anticonvulsants, antidepressants, antineoplastics, antipsychotics, antiretrovirals, and immunosuppressants. **RESULTS:** Beneficiaries enrolled in PDPs had higher drug costs per person across all drug classes for both years compared to those in MA-PDs. LIS enrollees had higher drug costs per person for each year for the drug classes compared to non-LIS enrollees with the exception of antineoplastics. These findings were in the context of number of prescriptions filled per enrollee increasing less than one percent between calendar years 2007 and 2008 for all drug classes. Odds ratio point estimates between the two years for gap phase entry and catastrophic phase entry indicate that PDP and LIS enrollees were more likely to reach the gap and catastrophic phases as compared to their counterparts (i.e., MA-PD and non-LIS enrollees) for both calendar years. **CONCLUSIONS:** Findings suggest that drug costs per person increased from 2007 to 2008. In general, the increase was higher for MA-PD enrollees (compared to PDP enrollees) as well as for LIS enrollees (compared to non-LIS enrollees). A higher likelihood of gap phase and catastrophic phase entry existed for PDP enrollees (compared to MA-PD enrollees) and for LIS enrollees (compared to non-LIS enrollees) for all classes.

PHP27

CANADIAN PUBLIC DRUG PROGRAM SPENDING ON SENIORS, 2002 TO 2008

Hunt J, Gaucher M

Canadian Institute for Health Information, Ottawa, ON, Canada

OBJECTIVES: Seniors are estimated to account for about 40% of all Canadian retail spending on prescription drugs, and make up a significant proportion of public drug program expenditures. This analysis examines the types of drugs accounting for the majority of public drug program spending for seniors, and the distribution of program spending across seniors. **METHODS:** This study examined claims for 1,039,642 seniors on public drug programs in six Canadian provinces (Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island) from 2002 to 2008, representing over 80% of the senior population in those provinces in 2008. Public drug program spending on seniors refers only to the portion of prescription costs paid by the public drug program, including professional fees and markup, where applicable. **RESULTS:** In 2008, the top 10 drug classes, in terms of public drug program spending, accounted for almost half (48.3%) of all spending on seniors in the six provinces. 3-hydroxy-3-methyl-glutaryl-Coenzyme A reductase inhibitors accounted for the highest proportion of drug program spending for seniors, while 4 of the top 10 classes were used to treat hypertension. Almost half (45.5%) of public drug program spending was for a small group of seniors (14.7%), where the drug programs paid \$2,500 or more of their annual drug costs. Tumour necrosis factor alpha inhibitors were the fastest growing drug class, in terms of spending, growing at an average annual rate of 58.4% between 2002 and 2008. **CONCLUSIONS:** Findings show almost half of drug program spending for seniors is on a small number of drugs. This suggests that any cost saving initiatives that impact spending on these drugs could have a significant impact on overall public drug program spending.

PHP28

COMPLIANCE WITH TREATMENT GUIDELINE RECOMMENDATIONS: USE OF OVER-THE-COUNTER MEDICATIONS IN PATIENTS RECEIVING BISPHOSPHONATES, ANTIEPILEPTICS, OR CHRONIC OPIOIDS

Barnes KD, Heaton PC

University of Cincinnati, Cincinnati, OH, USA

OBJECTIVES: This study determined the frequency of OTC medication use following treatment guidelines, specifically the percentage of patient visits recorded in the National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey outpatient department (NHAMCS) that included (1) bisphosphonates with calcium, (2) divalproex or carbamazepine therapy with folic acid, and (3) fentanyl or methadone therapy with a laxative. **METHODS:** A retrospective, observational study was conducted using NAMCS and NHAMCS data from 2006–2008. Data for visits including bisphosphonates with calcium, divalproex or carbamazepine in women of childbearing age with folic acid, and methadone or fentanyl in adults over age 40 years with laxatives were collected. Descriptive statistics and logistic regression were used to analyze weighted data to produce national estimates. **RESULTS:** Calcium was used in 25.3% of visits with bisphosphonate therapy; visits associated with antiepileptics and chronic opioids had lower rates of supplementation, with 5.0% including folic acid and 3.7% including laxatives. Visits by Asians (OR=2.74; CI 1.42–5.27) and patients from the north-east (OR=1.57; CI 1.10–2.24) or midwest (OR=1.65; CI 1.15–2.37) were more likely to include calcium, while visits by patients with Medicaid (OR=0.48; CI 0.30–0.78) were least likely to include calcium. In visits with antiepileptics, Asian women (46.0%) and women with private insurance (9.5%) were more likely to receive folic acid. In visits that included chronic opioids, only 1.2% of patients age 40–49 years included a laxative while 6.7% of visits by patients over 70 years included a laxative. Laxative use was low in visits by African American patients (1.8%) and patients residing in a zip code with $<12.84\%$ of the population holding a bachelor's degree (1.9%). **CONCLUSIONS:** The majority of patients were not receiving OTC supplementation vital to the treatment of osteoporosis, epilepsy, and chronic pain. Targeted inter-